

WHAT IS CLAIMED IS:

1. A high frequency transmission line comprising:

a first high frequency transmission line having a signal line, a width of an edge portion thereof being different from
5 a width of another portion thereof; and

a second high frequency transmission line different from said first high frequency transmission line, having a signal line which is connected to the edge portion of said signal line of the first high frequency transmission line.

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2. A high frequency transmission line as claimed in claim 1, wherein said first and second high frequency transmission lines own the signal lines in different layers of a dielectric substrate respectively;

15 the edge portion of the signal line of said first high frequency transmission line is arranged to overlap with the signal line of said second high frequency transmission line; and

a connection conductor is provided to connect said edge portion of said first high frequency transmission line to said
20 edge portion of said second high frequency transmission line.

3. A high frequency transmission line as claimed in claim 2 wherein said edge portion of the second high frequency transmission line has a width which is different from a width
25 of another portion thereof.

4. A high frequency transmission line as claimed in claim

2 further comprising a conductor for shortening a distance between a ground conductor and said signal line of said first high frequency transmission line.

- 5 5. A high frequency transmission line comprising:
 a first high frequency transmission line having a signal line in a layer of a dielectric substrate;
 a second high frequency transmission line having a signal line in a different layer of a dielectric substrate;
10 a third signal line which is provided in a layer between said first signal line of said first high frequency transmission line and said second signal line of said second high frequency transmission line, and which is formed in such a manner that one edge of said third signal line is overlapped with said first signal
15 line and another edge thereof is overlapped with said second signal line;
 a first connection conductor for connecting said first signal line to said one edge of said third signal line; and
 a second connection conductor for connecting said second
20 signal line to said another edge of said third signal line.

6. A high frequency transmission line as claimed in claim 5, wherein an edge portion of said first signal line connected to said first connection conductor owns a line width different
25 from a line width of another portion thereof.

7. A high frequency transmission line as claimed in claim

6 wherein an edge portion of said second signal line connected
to said second connection conductor owns a line width different
from a line width of another portion thereof.

5 8. A high frequency transmission line as claimed in claim
5 wherein a width of said third signal line is set between said
first signal line and said second signal line.

9. A high frequency transmission line as claimed in claim...
10 5 wherein said third signal line is arranged in a step form in
such a manner that one edge of said third signal line is overlapped
with a line of an upper layer and another edge of said third signal
line is overlapped with a line of a lower layer, and owns at least
one, or more lines, the overlapped portions of which are connected
15 to each other; a line width of a partial line within said lines
is defined between a width of said first signal line and a width
of said second signal line; and the line width is changed in a
step manner among the lines.

20 10. A high frequency transmission line as claimed in claim
5, further comprising: a conductor for shortening a distance
between said first signal line and a ground conductor.

25 11. A high frequency transmission line comprising:
a first high frequency transmission line having a signal
line in a layer of a dielectric substrate;
a second high frequency transmission line having a signal

line in a different layer of a dielectric substrate, the edge portion being overlapped with said signal line of said first high frequency line;

a connection conductor for connecting said signal line of
5 said first high frequency transmission line to said edge portion of said second high frequency transmission line; and

a conductor for shortening a distance between said signal line of said first high frequency transmission line and a ground conductor.

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12. A high frequency board for conducting a high frequency signal to a high frequency circuit via a high frequency transmission line which contains a first high frequency line and a second high frequency line different from said first high frequency line,
15 wherein the high frequency transmission line comprises:

a first high frequency transmission line having a signal line, a width of an edge portion thereof being different from a width of another portion thereof; and

a second high frequency transmission line different from
20 said first high frequency transmission line, having a signal line which is connected to the edge portion of said signal line of the first high frequency transmission line.

13. A high frequency board as claimed in claim 13, wherein
25 said first and second high frequency transmission lines own the signal lines in different layers of a dielectric substrate respectively;

the edge portion of the signal line of said first high frequency transmission line is arranged to overlap with the signal line of said second high frequency transmission line; and

5 a connection conductor is provided to connect said edge portion of said first high frequency transmission line to said edge portion of said second high frequency transmission line.

14. A high frequency board which conducts a high frequency signal to a high frequency circuit via a high frequency transmission
10 line containing signal lines in different layers of a dielectric substrate, wherein the high frequency transmission line comprising:

a first high frequency transmission line having a signal line in a layer of a dielectric substrate;

15 a second high frequency transmission line having a signal line in a different layer of a dielectric substrate; . . .

a third signal line which is provided in a layer between said first signal line of said first high frequency transmission line and said second signal line of said second high frequency
20 transmission line, and which is formed in such a manner that one edge of said third signal line is overlapped with said first signal line and another edge thereof is overlapped with said second signal line;

a first connection conductor for connecting said first
25 signal line to said one edge of said third signal line; and

a second connection conductor for connecting said second signal line to said another edge of said third signal line.

15. A high frequency board which conducts a high frequency signal to a high frequency circuit via a high frequency transmission line containing signal lines in different layers of a dielectric substrate, wherein the high frequency transmission line
5 comprising:

a first high frequency transmission line having a signal line in a layer of a dielectric substrate;

a second high frequency transmission line having a signal
10 line in a different layer of a dielectric substrate, the edge portion being overlapped with said signal line of said first high frequency line;

a connection conductor for connecting said signal line of said first high frequency transmission line to said edge portion
15 of said second high frequency transmission line; and

a conductor for shortening a distance between said signal line of said first high frequency transmission line and a ground conductor.